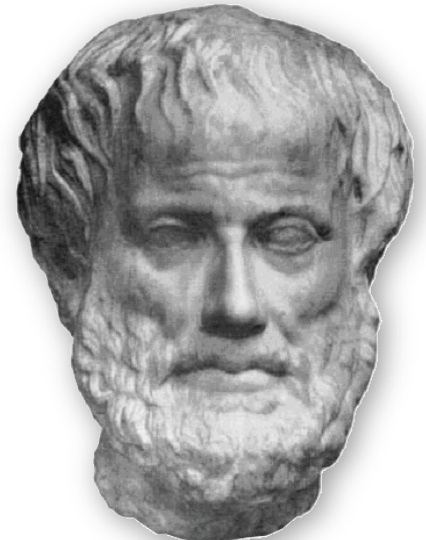


ARISTOTLE

Some Prolegomena...

Biographical information...

- » Born in 384 BCE, a Macedonian, wealthy family, studied at Plato's Academy, left Athens after Plato's death, called to tutor the young Alexander the Great, in 335 BCE he returned to Athens to found his own school called the Lyceum, after Alexander died Aristotle fled Athens for fear that the Athenians would "sin twice against philosophy", shortly after leaving Athens, Aristotle died at the age of sixty two



Some key ideas...

- » Rejection of Plato's theory of *transcendent* Forms
- » Having dismissed Plato's "two worlds theory", Aristotle advances a theory of *immanent* Form... In other words, although Aristotle agrees with Plato that there are universal forms that are *objective*, essential for *knowledge* and that constitute the *essences* of things in the world, Aristotle thinks that these forms can only be the cause and explanation of things if they are *an intrinsic part of things* themselves.
- » As such, Aristotle's method of philosophical inquiry begins with what we encounter in the natural world– that is, with what we *see* and *believe*

ARISTOTLE

The Four Causes...

What is required and sufficient for knowledge?

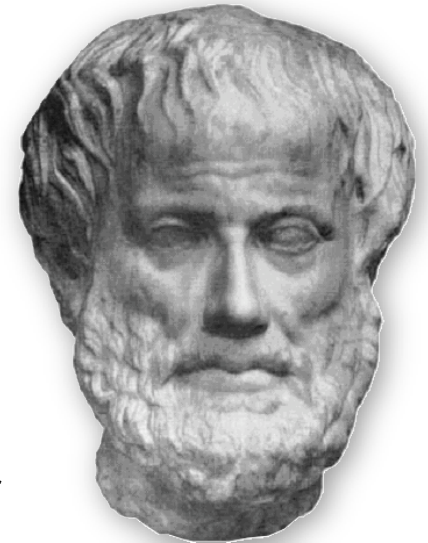
- » Central to Aristotle's thought is his four-causal explanatory scheme. Like other philosophers, Aristotle expects the explanations he seeks in philosophy and science to meet *certain criteria of adequacy*. He states his scheme in a methodological passage in the second book of his *Physics* (194b23–35):

*One way in which cause is spoken of is that **out of which** a thing comes to be and which persists, e.g. the bronze of the statue, the silver of the bowl, and the genera of which the bronze and the silver are species.*

*In another way cause is spoken of as **the form or the pattern**, i.e. what is mentioned in the account (logos) belonging to the essence and its genera, e.g. the cause of an octave is a ratio of 2:1, or number more generally, as well as the parts mentioned in the account (logos).*

*Further, the primary **source of the change** and rest is spoken of as a cause, e.g. the man who deliberated is a cause, the father is the cause of the child, and generally the maker is the cause of what is made and what brings about change is a cause of what is changed.*

*Further, the **end (telos)** is spoken of as a cause. This is that for the sake of which (hou heneka) a thing is done, e.g. health is the cause of walking about. 'Why is he walking about?' We say: 'To be healthy'— and, having said that, we think we have indicated the cause.*



ARISTOTLE

The Four Causes...

Considering an example...

- » A bronze statue admits of various different dimensions of explanation. If we were to confront a statue without first recognizing what it was, we would, thinks Aristotle, spontaneously ask a series of questions about it.
- » We would wish to know *what it is*, *what it is made of*, *what brought it about*, and *what it is for*. In Aristotle's terms, in asking these questions we are seeking knowledge of the statue's four causes (*aitia*): the formal, material, efficient, and final.
- » According to Aristotle, when we have identified these four causes, we have *satisfied a reasonable demand for explanatory adequacy*. More fully, then, the four-causal account of explanatory adequacy requires an investigator to cite these four causes:
 1. **The material cause:** *that from which something is generated and out of which it is made, e.g. the bronze of a statue.*
 2. **The formal cause:** *the structure which the matter realizes and in terms of which it comes to be something determinate, e.g., the shape of the president, in virtue of which this quantity of bronze is said to be a statue of a president.*
 3. **The efficient cause:** *the agent responsible for a quantity of matter's coming to be informed, e.g. the sculptor who shaped the quantity of bronze into its current shape, the shape of the president.*
 4. **The final cause:** *the purpose or goal of the compound of form and matter, e.g. the statue was created for the purpose of honoring the president.*

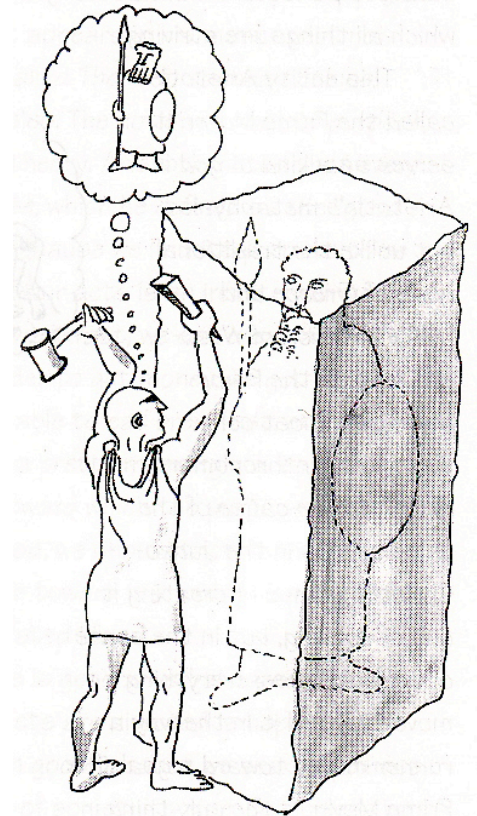
ARISTOTLE

The Four Causes...

What is *necessary* and *sufficient* for an adequate explanation (or account) of X?

- » According to Aristotle, if we were to confront some object without first recognizing what it was, we would, spontaneously ask a series of questions about it. Specifically, we would wish to know *what it is*, *what it is made of*, *what brought it about*, and *what it is for*.
- » In Aristotle's terms, in asking these questions we are seeking knowledge of the object's causes (*aitia*), which have been traditionally referred to as the...

1. *Material Cause* of X - what X is *made out of*
2. *Formal Cause* of X - what it *is to be* X
3. *Efficient Cause* of X - what *produces* X
4. *Final Cause* of X - what X *is for*



ARISTOTLE

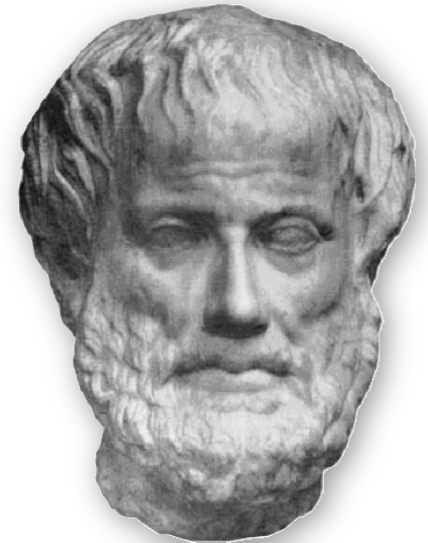
The Four Causes...

An important text...

“It is evident, then, that these are the causes and that this is their number. Since there are four of them, the student of nature ought to know them all; and in order to give the sort of reason that is appropriate for the study of nature, he must trace it back to all the causes— to the matter, the form, what initiated the motion and what something is for. [But] The last three often amount to one; for what something is and what it is for are one, and the first source of motion is the same in species as these...” (Physics, 7)

What should we make of last remark of this passage?

- » First, apparently it looks like there is an intimate connection between a thing's Form (*essence*) and its End (*purpose*)...
- » Second, apparently there is a ‘*first source of motion*’ common to all of these...
- » A few questions:
 1. What, exactly, does Aristotle mean by ‘motion’?
 2. And why does Aristotle think that there is some ‘first source of motion’ that is common?

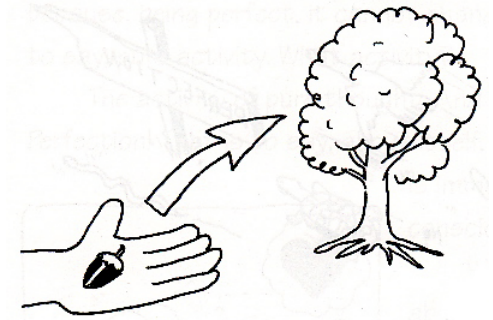


ARISTOTLE

Aristotle's Notions of Motion & Change...

Motion and change understood as the move from 'actuality' to 'potentiality'...

- » According to Aristotle, 'motion' and 'change' are to be understood in terms of the actualization of a potentiality.
- » Since a thing's 'form' is intimately connected to its 'end' or 'purpose', motion and change can be understood as the process of a particular material thing successively being shaped by different 'forms' until the final stage or 'goal' is reached.
- » In other words, potentiality inheres in a thing and it is the thing *as this potentiality in the process of being actualized* that can be said to be in motion. For example, an acorn has the potential to be an oak... or green tomato has the potentiality to be a red tomato. The actualization of its potentiality to be red is motion, in particular, the *alteration from being green to being red*.
- » *BUT...*



ARISTOTLE

Aristotle's Unmoved Mover...

The need for a first, unmoved mover...

- » But, from his considerations of the nature of motion and change, Aristotle ultimately concludes that there must be a logically first unmoved mover (or unchanged changer) in order to explain all other motion and change.
- » A Thomistic version of the argument...
 - (P1) Things are in motion (or undergoing change)
 - (P2) Everything that is moved is moved by something else
 - (P3) It is not possible for there to be an infinite series of movers
 -
 - (C1) Therefore, there is some unmoved mover
- » A few points about the nature of the 'unmoved mover'
 1. Not like the theistic "God"
 2. The unmoved mover is the 'teleological end' to which everything points
 3. An "understanding that is an understanding of understanding"